

**What is claimed is:**

1           1. A hollow core composite assembly, comprising:  
2           a hollow core base including at least one open core surface; and  
3           at least one solid film applied to said at least one open core  
4           surface.

1           2. A hollow core composite assembly as described in claim  
2, further comprising:  
3           at least one adhesive layer positioned between said at least one  
4           solid film and said at least one open core surface.

1           3. A hollow core composite assembly as described in claim  
2, further comprising:  
3           at least one dry face ply laid up dry and placed on said at least  
4           one solid film; and  
5           a liquid resin applied to said at least one dry face ply and then  
6           cured.

1           4. A hollow core composite assembly as described in claim  
2, wherein said at least one dry face ply includes a plurality of dry face plies.

1           5. A hollow core composite assembly as described in claim  
2, wherein said hollow core base is a honeycomb core.

1           6. A hollow core composite assembly as described in claim  
2, wherein said liquid resin is applied to said at least one dry face ply using  
3           resin transfer molding.

1           7. A hollow core composite assembly as described in claim  
2, wherein said liquid resin is applied to said at least one dry face ply using  
3           vacuum assisted resin transfer molding.

1               8.     A hollow core composite assembly as described in claim  
2, wherein said liquid resin is applied to said at least one dry face ply using  
3 vacuum assisted resin infusion.

1               9.     A hollow core composite assembly as described in claim  
2, wherein said at least one adhesive layer is an uncured adhesive film.

1               10.    A hollow core composite assembly, comprising:  
2                      a hollow core base including at least one open core surface;  
3                      at least one solid film applied to said at least one open core  
4                      surface; and

5                      at least one adhesive layer positioned between said at least one  
6                      solid film and said at least one open core surface.

1               11.    A hollow core composite assembly as described in claim  
2, further comprising:

3                      at least one dry face ply laid up dry and placed on said at least  
4                      one solid film; and  
5                      a liquid resin applied to said at least one dry face ply and then  
6                      cured.

1               12.    A hollow core composite assembly as described in claim  
2, wherein said at least one dry face ply includes a plurality of dry face plies.  
3

1               13.    A hollow core composite assembly as described in claim  
2, wherein said hollow core base is a honeycomb core.

1               14.    A hollow core composite assembly as described in claim  
2, wherein said liquid resin is applied to said plurality of dry face plies using  
3 resin transfer molding.

1                   15. A hollow core composite assembly as described in claim  
2                   11, wherein said liquid resin is applied to said plurality of dry face plies using  
3                   vacuum assisted resin transfer molding.

1                   16. A hollow core composite assembly as described in claim 11,  
2                   wherein said at least one adhesive layer is an uncured adhesive film.

1                   17. A method of producing a hollow core composite  
2                   assembly comprising:

3                         applying a film adhesive to an open core surface of a hollow core  
4                   base; and

5                         applying a solid film to said open core surface.

1                   18. A method of producing a hollow core composite  
2                   assembly as described in claim 17, further comprising:

3                         laying up dry at least one dry face ply on top of the solid film;

4                         applying liquid resin to said at least one dry face ply; and

5                         curing the hollow core composite assembly.

1                   19. A method of producing a hollow core composite  
2                   assembly as described in claim 18, further comprising:

3                         curing said solid film to said open core surface by said applying  
4                   liquid resin.

1                   20. A method of producing a hollow core composite  
2                   assembly as described in claim 18 further comprising:

3                         pre-curing said solid film to said open core surface.

1                   21. A method of producing a hollow core composite  
2                   assembly as described in claim 17, wherein said applying liquid resin is  
3                   accomplished utilizing a resin transfer molding process.

1                   22. A method of producing a hollow core composite  
2 assembly as described in claim 17, wherein said applying liquid resin is  
3 accomplished utilizing a vacuum assisted resin transfer molding process.